State of California Department of Fish and Wildlife
DUTY STATEMENT
DFW 242A (REV. 09/28/21)

☒ **PROPOSED**
☐ **CURRENT**

Department Statement:

California is one of the most biodiverse places on the planet. As such, the Department of Fish and Wildlife (CDFW) values diverse employees working together to protect nature for all Californians. CDFW is committed to fostering an inclusive work environment where all backgrounds, cultures, and personal experiences can thrive and connect others to our critical mission.

INSTRUCTIONS: A duty statement and organizational chart must be submitted with each Request for Personnel Action, Form 242	EFFECTIVE DATE E-FB 21-109

DFW DIVISION/BRANCH/REGION/OFFICE Wildlife and Fisheries Division / Fisheries Branch	POSITION NUMBER (Agency-Unit-Class-Serial) 565-033-0765-025
UNIT NAME AND LOCATION Cannabis Program, West Sacramento	CLASS TITLE Senior Environmental Scientist (Specialist)
INCUMBENT	CURRENT POSITION NUMBER (Agency-Unit-Class-Serial) 565-033-0765-025
BRIEFLY DESCRIBE THE POSITION'S ORGANIZATION SETTING AND MAJOR FUNCTIONS Under the direction of the Senior Environmental Scientist (Supervisory), and working as part of a multi-disciplinary team, the Senior Environmental Scientist (Specialist) will be a technical expert for the Department related to instream flow conditions and potential impacts from cannabis cultivation. The incumbent will develop standards and analyze instream flow data to evaluate conditions related to cannabis cultivation and aquatic resource impacts. The incumbent will play a major analytical role by providing statistical and modeling support primarily to the Department's Cannabis Monitoring Program but may also support regional cannabis teams and other Headquarters functions (e.g., Habitat Conservation and Planning Branch, Wildlife Branch, Law Enforcement), the State Water Resources Control Board (State Water Board), and California Department of Cannabis Control (DCC) on issues related to instream flow and aquatic habitat protections.	

PERCENTAGE OF TIME PERFORMING DUTIES	INDICATE THE DUTIES AND RESPONSIBILITIES ASSIGNED TO THE POSITION AND THE PERCENTAGE OF TIME SPENT ON EACH. GROUP RELATED TASKS UNDER THE SAME PERCENTAGE WITH THE HIGHEST PERCENTAGE FIRST. (USE THE REVERSE SIDE IF NECESSARY.)
	ESSENTIAL FUNCTIONS:
40%	**Data Management, Analysis, Synthesis and Modeling:** Conduct research and statistical analyses of diverse, multidisciplinary, and disparate datasets in a responsible and rigorous manner to ensure useable scientific information for decision makers and stakeholders to effectively manage natural resources and encourage collaborative science. Use coding in R, Python, etc., or various software platforms to perform time-series analyses, advanced analyses such as mixed effects regression models, model selection and ordination. Follow appropriate aspects of data science consistent with State of California programs (e.g., data generation, management, quality control, storage, documentation, visualization, archiving, and sharing). Manage data generated by monitoring program.
20%	. **Monitoring Framework:** Develop, coordinate, and execute hydrological and biological studies and data evaluation efforts to support implementation of a statewide monitoring framework to assess potential impacts from cannabis cultivation. Collect, analyze, and provide credible scientific information which can be applied in water planning and regulatory efforts, including cultivation licensing. Manage projects that inform the relation of flow to aquatic habitat suitability, stream temperature, channel geomorphology, riparian habitat, and restoration activities; the temporal and spatial hydrologic characteristics of flow regimes; fish population abundance, distribution, and dynamics.
20%	**Scientific and Technical Writing:** Author publications, technical reports, annual updates and recommendations to the Department, State Water Board, and DCC regarding management of the program by watershed or ecoregion to best implement standards, guidelines, and conditions for protecting aquatic habitat; provide documentation and data analysis related to aquatic habitat and

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	annual and cumulative effects from cultivation; oversee the publication and distribution of analyses and reports on cannabis cultivation effects on fish and wildlife habitat. **Science Planning, Guidance and Coordination:** Provide standards and guidance on the evaluation of instream flow conditions related to cannabis cultivation and effects on aquatic resources; evaluate
10%	cannabis program information on instream flow effects to aquatic habitat; provide technical support to the State Water Board to develop regionally specific long-term flow requirements for cannabis cultivation across the state. Coordinate with regional cannabis programs; act as technical specialist and representative to State Water Board and DCC for the Cannabis Program on standards and conditions for protecting instream flow and aquatic habitat; provide technical and procedural guidance to Department leadership and environmental scientists working on aquatic habitat issues.
	NON-ESSENTIAL FUNCTIONS:
5%	Maintain professional knowledge in subject area through training, seminars, workshops, and professional societies.
5%	Other duties required including generation of monthly time sheets, expense claims, responding to the general public and/or technical staff questions, and assisting with legislative bill analyses.
	KNOWLEDGE AND ABILITIES
	Knowledge of: Basic principles of land, water, fish, wildlife, and other natural resources research; principles of ecology, resource management, hydrology, and geology; statistical methods; land-use practices with reference to their general effect on human health, natural resources, agricultural productivity, and the environment; effects of hazardous and non-hazardous waste material and their interactions on the environment; chemical reactions; California and Federal environmental laws, rules, regulations, and requirements; basic toxicology, hydrology, geology, and principles of risk assessment and risk management; concepts employed in a variety of disciplines including environmental planning, economics, and resource management; geolocation and geo-referencing software applications, resource conservation program impacts and implementation strategies; and recycling issues. Broad knowledge of the legislative process; California and Federal environmental regulatory and resource management laws, regulations, plans, programs, and policies relating to their program area; resource management practices and techniques; and chemical substances and waste materials and their interactions with and effects on public health and the environment. **Ability to:** Apply or modify scientific methods and principles; collect environmental data; analyze and evaluate data and reach sound conclusions; review, check, and interpret scientific and environmental reports; analyze situations and take appropriate actions; establish and maintain cooperative relations with all persons contacted; communicate effectively; prepare clear, complete, and technically accurate reports; apply laws, rules, regulations, policies, and requirements of California and federal environmental protection and resource management programs; assess the impact of proposed State and federal environmental legislation and regulations; understand principles of risk assessment and risk management; work with professionals from a variety of disciplines within and outside of state government; review and understand technical research reports on emerging public health and environmental issues. Develop scientific methodologies, research projects, criteria, procedures, guidelines, reference materials, planning and regulatory documents, and other innovative solutions for critical and/or sensitive environmental management problems; independently plan environmental studies; provide research and evaluation of short-term and important projects concerning public health, agricultural productivity, and environmental protection; develop techniques for handling and analyzing a large variety of detailed data; communicate the results and implications of studies to non-specialists; act as an expert witness in court or at legislative or quasi-judicial hearings; provide leadership in

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	accomplishing basic functions and objectives in assigned programs; and inspire confidence and effective working relationships with employees, managers, and leaders in government and industry. **DESIRABLE QUALIFICATIONS** **Skill to:** Demonstrated ability to wrangle high dimensionality data and/or remotely sensed data; experience working at the interface of computer science, statistics, and domain knowledge; experiencing building and/or managing large databases; proficiency as a statistician and modeler. **Special Personal Characteristics:** Possess advance technical knowledge in hydrology, statistics, statistical design, or agricultural sciences. Detail-oriented with a high degree of personal integrity and the ability to work independently and as part of team. **Interpersonal Skills:** Ability to communicate findings effectively in writing and verbally to a variety of audiences such as Executive-level managers, industry partners, the public and scientific colleagues; inspires confidence, demonstrates a cooperative spirit, and promotes collaboration. **WORKING CONDITIONS** Travel as required performing tasks in field setting that could involve long hours, inclement weather, snorkeling and traversing uneven terrain; represent the Department at difficult meetings; work at home and in the office.

SUPERVISOR'S STATEMENT: **I HAVE DISCUSSED THE DUTIES OF THE POSITION WITH THE EMPLOYEE.**		
PRINT SUPERVISOR'S NAME Kelly Souza	**SUPERVISOR'S SIGNATURE**	**DATE**
EMPLOYEE'S STATEMENT: **I HAVE DISCUSSED WITH MY SUPERVISOR THE DUTIES OF THE POSITION AND HAVE RECEIVED A COPY OF THE DUTY STATEMENT.** **I HAVE READ AND UNDERSTAND THE DUTIES AND ESSENTIAL FUNCTIONS OF THE POSITION AND CAN PERFORM THESE DUTIES WITH OR WITHOUT REASONABLE ACCOMMODATION.**		
PRINT EMPLOYEE'S NAME	**EMPLOYEE'S SIGNATURE**	**DATE**